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Staff Development for Improving Teaching Skills of Mainstream Teachers of Limited English Proficient (LEP) Students

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A review of the literature on teacher training and teacher supply and demand indicates continued need for teachers in some academic fields, including Bilingual Education, well into the 1990s. Haberman (1988) suggests that between 1986 and 1992 school districts will employ approximately 1.3 million teachers in the United States. An overwhelmingly Anglo faculty (who will comprise 95% of the teaching staff) will teach minority children (who will

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comprise 30% of the student population). Thus, school children, particularly language minority children, will have "exclusively white authority figures in the schools" (p. 38). (For an insightful view of this premise, see Martin Haberman, "Proposals for Recruiting Minority Teachers: Promising Practices and Attractive Detours," *Journal of Teacher Education*, Vol. XXXIX, July-August, 1988).

The language minority teacher shortage is nationally acute. Farrell (1990) reports a 1987 survey by the American Association of Colleges for Teacher Education (AACTE) reveals that while 16.2 percent of the nation's teachers are Black, Hispanics account for 9.1 percent of the school children but only 1.9 percent of the teachers. Projections by the U. S. Bureau of Census show that the populations will increase by 12.3 percent in the years 1985 - 2000, but the Anglo population will only increase by 6.5 percent. The Black population will increase by 23 percent, while the Hispanic population will grow by 45.9 percent. Predictions indicate that by the year 2000, fewer than 5 percent of the teaching force will be minority (Farrell, 1990). The necessity, then, is to train and sensitize mainstream teachers (preservice and inservice) to provide effective instructional services to language minority students. One effective approach should be to develop a training model based on teacher-student interaction in the classroom.

Teaching and Decision-Making in the Classroom

Donald Schon (1983) describes the teacher as a professional whose work is similar to that of an engineer, architect, or psychotherapist. He maintains teacher thinking is a "reflection-in-action" activity based on implicit and situationally founded cognitions. The professionals, according to Schon, reach back to their repertoire of experiences for understanding new events. When the new events occur, professionals continue to refine their concept of the action among themselves (Yinger, 1987). When bilingual education teachers are in control of language minority children's classrooms, reflection is easier because they share a common set of values, ideas, and concepts from a given culture. With mainstream teachers, the task is greater because two different cultures converge on the interaction of two different entities.

When dealing with minority children, mainstream teachers should begin to understand their own "in-flight decision-making" process and how it affects minority students. If they understand what motivates students' learning, they can inspire them to achieve academically. In the past, research on teacher effectiveness has focused on teaching methods, the knowledge of the teacher,

and student achievement (Gage, 1978). Empirical research, however, fails to show effective and successful teaching is possible only by the use of a specific methodology or approach (Mamchur & Nelson, 1984). In fact, the literature suggests effective teachers develop a personal and individual method based on perceptions of themselves, of their students, and of their work. This means teaching is an interactive process by which teachers skillfully develop their actions on what they think and how they think. The literature on teacher thinking (Clark & Yinger, 1977; Shavelson & Stern, 1981; and Clark & Peterson, 1986) maintains teaching involves systematic ideas about students, subject areas, and the teaching environment (Yinger, 1986). Thus, teaching involves complex "social and interactional processes such as clear communication, mutual negotiation of action, and joint construction of meaning" (Yinger, 1986). For teachers to move and motivate LEP children, it is essential for them to understand not only their own basis for decision-making, but they must also know the child's perspective.

Teaching as an Interactive Process. Teaching involves innovation in which the practitioner bases knowledge on experience. This experience is "stored holistic patterns to be recalled and applied as wholes or to be composed into situationally responsive actions" (Yinger, 1987). Past experience describes current concepts, and the medium of exchange or interplay between the practitioner and the members of the audience in conversation or dialogue. Thus, improvisation as a form of action does not rely on a structured and well thought out process such as planning, analysis, and reflection (Yinger, 1987). Instead, it is a method by which the practitioner relies on past actions to describe changing experiences and future actions. Thus, mainstream teachers may erroneously respond to cues from participants of different cultures. For example, the teacher may respond to a miscue from a child who respectfully lowers his head when directly addressed. Mistaking the child's action as disrespectful, the teacher may make an unrelated decision such as punishment or extra classroom assignments.

Thus, teaching is an interactive process between the teacher (practitioner) and the students (participants). To accurately portray this activity, decision-making becomes the focal point. Shavelson (1976) describes teaching as an action--based on an interactive decision: "Any teaching act is the result of a decision, whether conscious or unconscious, that the teacher makes after the complex cognitive processing of available information" (p. 401). He concludes by stating that the "basic teaching skill is decision-making" (p. 401). Training mainstream teachers to become effective in LEP classrooms must focus on

decision-making based on an understanding and awareness of the student's culture and background.

Decision-making in the Classroom. The literature on teacher decision-making is substantial. Clark and Peterson (1986), for example, provide an extensive topology of twelve studies using stimulated recall interviews to describe teachers' interactive thought processes during instructional time. This technique involves a recall of the thought processes of classroom events by reviewing a video-tape of segments of a class session. Calderhead (1981) maintains that recollection of the decision-making process by the use of this method is accurate.

Each of the studies reported viewed decision-making from a slightly different perspective. For Marland (1977), for example, decision-making is a "conscious choice" (quoted in Clark & Peterson, 1986, p. 273). An interactive decision must make reference to several possible alternatives and must show that the teacher selected one of these alternatives and employed this alternative throughout the lesson.

For Sutcliffe and Whitfield (1979), an interactive decision is a teacher's conscious choice of behaving as before or acting in another way. Other studies, e.g., Morine and Vallance (1975), Fogarty, Wang, and Creek (1982), Woodlinger (1980), and Shroyer (1981), have the same view of this concept of interactive decision-making. For example, Woodlinger (1980) defined an interactive decision as one consisting of "statements or units in which the teacher's thoughts focused upon the delivery of instructional material or student learning" (p. 282). For Clark and Peterson (1986) a teacher is aware of various alternatives of choice. Thus, the decision involves a deliberate act to employ a new and different action.

Shroyer (1981) uses the concept of "elective action" in categorizing a teacher's decision. Based on "student occlusions" (student difficulty or behavior), a teacher elects to respond with some kind of action. For Clark and Peterson (1986), decision-making is a "deliberate choice to implement a specific action" (p. 277). For interactive decision-making, the basic concept is that action is both conscious and deliberate. The literature on interactive teaching indicates that teachers, while in the act of teaching, do many things, use many skills, and rely on formal knowledge. However, the "basic and crucial skill of teaching is decision-making -- deciding what to do given current circumstances" (Yinger, 1986, p. 264). For mainstream teachers, paramount importance focuses on information and data upon which to base an interactive decision. Therefore, the basis for the mainstream teacher's interactive decisions is different from that of the linguistic and cultural minority students. Thus, the mainstream teacher's

repertoire needs expansion and clarification to prevent cultural conflict leading to a stressful environment in the classroom.

An example of this conflict can be seen in the case of Maria V. as she relates her story about growing up in the Los Angeles area in the 1940s. As a six-year old, she cared for two younger siblings while her parents worked the fields as migrant workers. Because her parents worked from sunrise to sunset, she cooked for her brother and sister. She cleaned house, and she even prepared a meal for her parents when they finished working for the day. Yet, she relates, when she entered school her teachers failed to recognize her leadership skills. They called on her blonde, blue-eyed classmates to perform leadership building tasks normally assigned to children in the classroom. Ignored most of the time, Maria developed a resentment towards her majority-culture classmates.

Teacher Decision-making and Classroom Effectiveness. An important aspect of this problem involves the relationship of teacher decision-making and classroom effectiveness. While the literature is rapidly expanding with empirical evidence on interactive teaching, there is a paucity of research on interactive teaching and decision-making in bilingual education classrooms. Researchers have indicated other factors affect students' classroom performance and academic achievement. Interactive teaching involves attribution on the part of the teacher which can have either an ego-enhancing or a "counter-defensive" effect on the students. More research on the impact of culture and language difference on interactive teaching is needed. Clark and Peterson (1986) report only four studies dealing with the effect of race and social class on teachers' attributions (Wiley & Eskilson, 1978; Cooper, Baron, & Low, 1975; Domingo-Llacuna, 1976; and Feuquay, 1979). These studies, however, focus on teacher perceptions of successes and failures of black students or on the influence of teacher's attribution based on the students' social class. They do not examine the concerns of Hispanic students.

Teacher decisions made during the learning and teaching process must be analyzed in order to determine, through an interactive process, the mental priorities of the person making those decisions. It is the interactive process which is central to decision-making and not a prescription formulated by teacher training programs and curriculum (Shavelson & Stern, 1983).

An effective framework to determine teacher decision-making could be based on Shavelson's model (1976) that focuses on why and how teachers make decisions during the instructional process. This training model for mainstream teachers should center on the teacher's ability and skill in choosing strategies during the course of the lesson. Classroom decisions are examined from the perspective of five components outlined by Shavelson (1976): (a) the choice of

one particular action over others, (b) the environmental cues or conditions which stimulate the teacher to make the choice, (c) the outcome of the decision, (d) the teacher's use of the decision, and (e) the goal the decision is intended to achieve.

A Staff Development Training Model

It is essential, therefore, to establish a process for staff development to improve effectiveness of mainstream teachers. Concepts of teacher decision-making can provide a framework for building the capacity of mainstream teachers to teach LEP students. Decision-making actions during the instructional process are investigated by the use of stimulated recall techniques, described below. Teachers are asked to give their thoughts during particular decision making points (DMPs). The thought process is analyzed according to the interactive teacher decision-making models described by Peterson and Clark (1971) and Shavelson and Stern (1981). These two models trace the flow of the teacher's thinking process starting at a specific point (the DMP). This is the point when the teacher faces a cue, i.e., the place where the instructional flow is no longer tolerated and the teacher must take alternative actions.

Once a staff development training model is established it should categorize decision-making actions with those given by McNair and Joyce (1979) for comparative purposes. This study lists five general categories: pupils, content, procedures, materials, and time. Decisions dealing with **pupils** will be analyzed according to learning (student acquisition of factual information), attitude (affective aspect of the student response), and behavior (how a student acts in the classroom). The category on **content** will focus on task (the learning activity in which the student is engaged) and facts and ideas (what the teacher wants the children to obtain from the lesson). It also includes objectives (knowledge and skills developed in the lesson). The category on **procedures** deals with directions (what students do to accomplish the lesson), modifications (deviation from the normal routine), and scheduling (the order in which things happen during the lesson). The category on **materials** refers to the instructional system (approaches used by the teacher involving textbooks and commercial materials). It also includes teacher-developed aids (materials made, purchased, or altered by the teacher to enhance the lesson). The **time** category includes time block restrictions (accomplishing a certain amount within a given time period in which the lesson takes place). It also includes pacing (speed at which to present material), the flow of teacher questions, and student responses. This category should also incorporate time-related goals (long range expectations such as number of assignments completed).

Given that LEP students need additional English as a Second Language (ESL) instruction, the teacher must affirm that students have a clear understanding of course content and curriculum materials. At the same time, teachers must make an affirmation that students have sufficient knowledge of English to understand classroom procedure. Thus, to determine student needs in those areas, a sixth item should be added to the staff development matrix. The category on **culture** provides the teacher with information on student learning styles, student-teacher attitudes in a cultural context, and language barriers that impede student understanding of the classroom materials.

The decision-making process determines teacher effectiveness in the classroom. Stimulated recall techniques consisting of systematic methods of video-taping teachers in their classrooms during instructional time are among the most efficacious ways of helping teachers acquire needed skills for teaching limited English proficient students. The teacher's instructional methods are video-taped in twenty minute segments. Within a two- or three-week period following each video-taping session, the supervisor and the teacher analyze the video-tape using stimulated recall to determine the decision-making points.

The supervisor first plays the twenty-minute segment for the subject, enabling recall of critical thinking at each decision-making point. After the segment is played, the supervisor rewinds the tape, and they both identify and analyze each DMP. The interview session is audio-taped for verification purposes. The supervisor asks the subject the following questions at each DMP:

(1) What were you thinking at this point?

(2) Were you thinking of any alternative actions or strategies at this point which influenced your action?

(3) Was there anything the student said or did not say at this point which influenced your action?

(4) Did any specific student behavior or reaction cause you to act differently than you had planned? If so, what?

(5) Was there anything specific about a student's behavior to suggest that the student didn't understand or was not paying attention?

(6) Did you have any instructional objectives in mind at this point?

The Mainstream Teacher Interview. The interview protocol is then coded using the six general categories listed above. An analysis of the responses determines the following functions: correcting or adjusting the lesson, dealing with unpredictable parts of the lesson, self-regulating of teacher behavior, and adapting instruction to individual students (Marland, 1977). A matrix of the categories and subcategories facilitates areas of teachers' staff development needs. The matrix is given in the following chart:

Pupils	Content	Procedures	Materials	Time	Culture
1. Student acquires knowledge	1. Classroom tasks	1. Direction for accomplishing tasks	1. Instructional materials such as textbooks, etc.	1. Blocks of time to accomplish objectives	1. Learning styles
2. Attitude in the affective areas	2. Facts and ideas	2. Modification	2. Teacher developed classroom aids	2. Pacing (speed in which content material is presented)	2. Attitudes in cultural context
3. Behavior	3. Learning objectives	3. Scheduling (order in which classroom activities occur)		3. Flow of teacher questions and student responses	3. Linguistic barriers

The teacher's capacity to deal with limited English proficient students is also established. The supervisor formulates areas where the mainstream teacher needs training by tabulating the DMPs that result from the videotaping. Teacher effectiveness depends on the capacity of the supervisor to identify areas that need to be strengthened and the ability of the teacher to change or modify the direction of the teaching process in order to meet the perceived needs of the students. This ability is demonstrated during the in-flight interactive process of teaching.

Mainstream teachers viewing the various DMPs are able to analyze actions taken, thereby increasing effectiveness in the classroom. Supervisors can help teachers establish a basis for decisions made, leading to a greater understanding of cultural diversity. Several results are anticipated: improved analysis of teacher-prepared curriculum, improved balance in the selection of classroom instructional techniques, improved diagnostic awareness of cognitive problems of students, more precise analysis of instructional problems, and a consistent and conscious application of systematic problem-solving strategies to all

aspects of teaching, including curriculum, instruction, evaluation, and diagnosis of student needs (Martin, 1983). Learning to instruct LEP students can lead a mainstream teacher to acquire a greater awareness of self, to facilitate emotional growth in the students, and to help colleagues obtain a global understanding of human relations.

Conclusion

On the basis of data analysis described above, a training model can be developed that will provide detailed empirical evidence of teacher classroom effectiveness. It must employ variables other than student academic achievement, traditionally the standard evaluation measurement. The results can serve as a basis for developing curricular modifications and providing school districts with relevant information and insights for inservice training. The product is based upon Clark and Peterson's (1986) view that research on teacher thinking substantially "influences the outcomes of teacher effectiveness and curriculum effectiveness studies" (p. 292).

This model will help portray the teacher as a professional, so that prospective teachers can develop decision-making skills early in their educational training. It also contains fundamental concepts -- building blocks -- formulated into training modules for use by local school districts and colleges and universities.

References

Calderhead, J. (1981). Stimulated recall: a method for research on teaching. *British Journal of Educational Psychology*, 51, 211 - 217.

Clark, C. M., & Yinger, R. J. (1977). Research on teacher thinking. *Curriculum Inquiry*, 7, (4), 279-394.

Clark, C. M., & Peterson, P. L. (1986). Teachers' thought processes. In M. C. Wittrock (Ed.), *Handbook of research on teaching*, 3rd Ed. (pp. 255-296). New York: Macmillan.

Farrell, Edmund J. (1990). On the growing shortage of Black and Hispanic teachers. *English Journal*, 79: 39 - 46.

Fogarty, J. L., Wang, M. C., & Creek, R. (1982). *A Descriptive study of experienced and novice teachers' interactive instructional decision processes.* Paper presented at the annual meeting of the American Educational Research Association. New York, New York.

Gage, N. L. (1978). *Teacher effectiveness and teacher education: The search for scientific basis.* Palo Alto: Pacific Books, Publishers.

Haberman, Martin (1988). Proposals for recruiting minority teachers: Promising practices and attractive detours. *Journal of Teacher Education*, XXXIX, (July-Aug, 1988).

Mamchur, C., & Nelson, D. (1984). *Predicting teacher effectiveness: A final report on a proper linear regression approach to selection for teacher education in British Columbia.* (Report No. ERIC-RR-85-03) Vancouver, British Columbia Educational Research Institution.

Marland, P. E. (1977). *A study of teachers' interactive thoughts.* Unpublished doctoral dissertation. The University of Alberta, Edmonton, Canada.

Martin, David S. (1983). *Thinking skills: a critical new role in teacher education.* Paper presented at the annual meeting of American Association of Colleges for Teacher Education. Detroit, Michigan.

McNair, K., & Joyce, B. R. (1979). *Teachers' thoughts while teaching: The south bay study, Part I*, (Research Series No. 57). E. Lansing: Michigan State University.

McNair, K., & Joyce, B. R. (1979). *Teachers' thoughts while teaching: The south bay study, Part II*, (Report No. 400-76-0073). Institute for Research on Teaching. East Lansing: Michigan State University.

Morine, G., & Vallance, E. (1975). *Special study B: A study of teacher and pupil perception of classroom interaction.* (Tech. Rep. No. 75-11-6). San Francisco: Far West Laboratory.

Peterson, P. L., & Clark, C. (1978). Teachers' report of their cognitive processes during teaching. *American Educational Research Journal*, 15, 1, 555 - 565.

Schon, Donald A. (1983). The reflective practitioner: How professionals think in action. New York, Basic Books.

Shavelson, R. J. (1976). Teachers' decision making. In N. L. Gage (Ed.) *The Psychology of Teaching Methods* (Yearbook for the National Society for the Study of Education). Chicago: University of Chicago Press.

Shavelson, R. J., & Stern, P. (1981). Research on teachers' pedagogical thoughts, judgments, decisions and behavior. *Review of Education Research.* 54, 4, 455 - 498.

Shroyer, J. C. (1981). *Critical moments in the teaching of mathematics: What makes teaching difficult?* Unpublished doctoral dissertation, Michigan State University, East Lansing.

Sutcliffe, J., and Whitfield, R. (1979). Classroom based teaching decisions. In J. Eggleston (Ed.), *Teacher decision-making in the classroom: a collection of papers.* London: Routledge and Kegan Paul.

Woodlinger, M. G. (1980). *A study of teacher interactive decision-making.* Unpublished doctoral dissertation. University of Alberta, Edmonton, Canada.

Yinger, R. J. (1986). Examining thought in action: A theoretical and

methodological critique of research on interactive teaching. *Teaching and Teacher Education*, 2(3), 263 - 282.

Yinger, R. J. (1987). *By the seat of your pants: An inquiry into improvisation and teaching*. Paper presented at the annual meeting of the American Educational Research Association, Washington, D. C.